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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAN, TRONG Q

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,413

Applicant(s)

HATHAWAY ET AL.

Examiner

TRONG PHAN

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: **ATc, ATg, Slew_c and Slew_g in Figs. 6A-6B; all labels in Fig. 11.** A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-23 are not understood because of the following reasons:

a) it is not understood what ATc, ATg, Slew_c and Slew_g in Figs. 6A-6B and all labels and numbers in Fig. 11 really are since they are not described in the specification;

b) it is not understood how the idealized clock and gate signal waveforms as shown in Figs. 2-3 are associated with the output signal 120 in Fig. 1 since the output signal 120 waveform is not shown;

c) it is not understood what the setup tests, hold tests, AT test and clock gating test (as described in lines 13-17, page 15; lines 13, 16 and 18, page 17; lines 10, 14, 19 and 22, page 18; lines 9, 12-13, 17-18 and 21, page 22; line 12, page 23 and as recited in claims 5-6, 10 and 20), really are. Since no test circuit or test means or test signal is seen in any drawing of the present invention;

d) all computations as described from line 9, page 18 through line 20, page 25 of the specification are not understood since it is not understood how the ATgate, delay gate, Slewgate/2, factor K, ATclock and Slewclock are generated. These elements are also not shown in any drawing of the present invention.

e) it is not understood what the lower input of AND gate 800 in Fig. 8 of the present invention really is.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5, 11-13 and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 11 and 17, it is not clear how the step of modifying a timing of a sensing of said first-type of signal to sense said first-type of signal at an earlier point

in time than said second-type of signal is sensed. Since if the first-type of signal and the second-type of signal are, respectively, the trailing edge and the falling edge of gate signal as recited in claims 2, 12 and 18 or of the clock signal as recited in claims 3, 13 and 19, then, the sensing point with respect to the time is not seen in any drawing of the present invention. Only Fig. 6B of the present invention does show the sensing point 600 in the middle of **the trailing edge** (not falling edge) of clock signal being modified to move earlier than the sensing point 600 in the middle of the **trailing edge** (not falling edge) of clock signal in Fig. 6A.

Claim 3, it is not clear how the first-type of signal and the second-type of signal comprises clock trailing edge signals and also it is not clear how the second-type of clock signal can prevent a transition at the output of the gate device. These features are not seen in any drawing of the present invention. Only the gate signal is seen to be able to prevent a transition at the output of the gate device as described in the specification.

Claim 5, it is not clear how the sensing time is used for computing a setup test since there is no means for computing a setup test shown in any of the drawing of the invention.

Claim 6, it is not clear how the sensing time is used for computing a hold test since there is no means for computing a hold test shown in any of the drawing of the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-23 are, insofar as understood, rejected under 35 U.S.C. 102(a) as being anticipated by Wu, 6,167,001.

Wu, 6,167,001, discloses in Fig. 1 a testing system 10 for measuring setup and hold times for microelectronic device 16 which comprises a D-type flip-flop having a data input D, a clock input C and a positive logic output Q; as shown in Fig. 2, each of data signal and clock signal having a first-type signal (trailing edge) and a second-type signal (falling edge); the data signal having a sensing point at time T1 and the clock signal having a sensing point at time T0 after the time T1 about a delay time of D1; as shown in Fig. 3, the sensing point T0 of the clock signal being sensed earlier with respect to the sensing point T1 of data signal about a delay time of D3 smaller than D1.

Conclusion

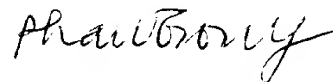
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Belkadi et al., 5,768,159, Savithri et al., 6,493,853, Minami et al., 6,272,667, and Wang et al., 5,579,510.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (703) 308-4870. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4021 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



TRONG PHAN
PRIMARY EXAMINER

March 23, 2003